

APPENDIX X.

Serial No.: 09/520,032

Docket No.: 49933US031

Final Office Action mailed from the U.S. Patent and Trademark Office on January 25,
2002.



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,032	03/06/2000	Timothy L. Hoopman	49933USA6Tc 31	9385
7590	01/25/2002		100,49933 017	
Gregory D. Alien Office of Intellectual Property Counsel 3M Innovative Properties Company P O Box 33427 St Paul, MN 55133-3427			EXAMINER	LEYSON, JOSEPH S
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 01/25/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

03/25/02
04/25/02
07/25/02
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1/27/02

Office Action Summary	Application No.	Applicant(s)
	09/520,032	HOOPMAN ET AL.
	Examiner	Art Unit
	Joseph Leyson	1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 17, 19-21, 25-28, 33-54, 94-96, 98-111 and 133-175 is/are pending in the application.
 - 4a) Of the above claim(s) 133-175 is/are withdrawn from consideration.
- 5) Claim(s) 19 is/are allowed.
- 6) Claim(s) 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1722

1. This application contains claims 133-175 drawn to an invention nonelected with traverse in Paper No. 12 filed on 23 August 2001 and in Paper No. 16 filed on 18 September 2001. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 40, --roll-- should be inserted after "coating" because the production tool is a coating roll, NOT a coating. Note that this appears to be a copying error because "roll" was originally in claim 40 but the marked up copy deletes it without marking it. The examiner suggests double checking the claims for any other copying errors.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1722

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 25-28 and 94-96 are rejected under 35 U.S.C. 102(b) as being anticipated by Rochlis(-583).

Rochlis(-583: figs. 21 and 22) teaches a production tool suitable for use in manufacturing an abrasive article (col. 1, lines 50-56) which includes a plurality of cavities having geometric shapes, angles and dimensions. At least two of the cavities have different angles. Note that 9 cavities are shown with a first plurality of rectangular cavities, a second plurality of circular cavities, and a third plurality of triangular cavities defining 20 pairs of adjacent cavities, wherein 14 of the pairs have at least one dimension, such as base edge lengths, which is different between the two cavities of the pair. Thus, 70% of the pairs have at least one dimension which is different between the two cavities of the pair. Each of the cavities has a single opening.

6. Claims 20, 21, 33, 34, 36-45, 47-54, 98, 99, 101-106 and 108-111 are rejected under 35 U.S.C. 102(b) as being anticipated by Rochlis(-583).

Rochlis(-583) teaches a production tool suitable for use in manufacturing an abrasive article (col. 1, lines 50-56) which

Art Unit: 1722

includes a plurality of cavities having different geometric shapes, angles and dimensions. The production tool can be a coating roll (fig. 19) or an etched (engraved) metal roll (col. 3, lines 52-63; col. 13, lines 15-17 and 62-67). The production tool can have 9 cavities as shown in figs. 21 and 22 with a first plurality of rectangular cavities, a second plurality of circular cavities, and a third plurality of triangular cavities defining 20 pairs of adjacent cavities, wherein 14 of the pairs have at least one dimension, such as base edge lengths, which is different between the two cavities of the pair. Thus, 70% of the pairs have at least one dimension which is different between the two cavities of the pair. At least one of the angles or base edge lengths of the first plurality is different from all the angles or base edge lengths of the second plurality and of the third plurality. At least one of the angles or base edge lengths of the second plurality is different from all the angles or base edge lengths of the first plurality and of the third plurality. Each of the cavities has a single opening.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

Art Unit: 1722

the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 17, 20, 21, 33-54 and 98-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis(-583).

As to claims 20, 21, 33, 34, 36-45, 47-54, 98, 99, 101-106 and 108-111, the 102 rejection above is based upon the interpretation of the alternatives for the production tool disclosed by Rochlis(-583) as being anticipatory. If applicants believe that the disclosed alternatives are NOT anticipatory, then it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the production tool of Rochlis(-583) with the alternatives disclosed

Art Unit: 1722

by Rochlis(-583) because Rochlis(-583) explicitly discloses that the production tool can be modified with such disclosed alternatives.

As to claim 17, Rochlis(-583) does not disclose the cavities having a material-included angle with a value from 20 to 90 degrees. Note that Rochlis(-583) discloses that the cavities can have pyramidal shapes (col. 13, lines 51-58). As to claims 35, 46, 100 and 107, Rochlis(-583) discloses a production tool having 3 different types of cavities defining three pluralities or groups of cavities (figs. 21 and 22), but does NOT explicitly disclose a fourth plurality or group of cavities having a fourth different type of cavity. However, Rochlis(-583) discloses that the production tool can have different sizes (col. 2, lines 66-70; col. 6, lines 17-22; col. 9, line 61, to col. 10, line 52) and discloses that the production tool can have a plurality of different types of cavities (col. 13, lines 29-35). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the cavities of Rochlis(-583) to have a material-included angle with a value from 20 to 90 degrees because such an angle would have been found due to routine engineering in finding operable parameters for the apparatus and/or in optimizing the apparatus, In re Aller, 105

Art Unit: 1722

USPQ 233 and/or because Rochlis(-583) discloses that the cavities can be of different sizes, or to modify the production tool to have four pluralities or group of cavities having four different types of cavity because Rochlis(-583) discloses that the production tool can have a plurality of different types of cavities and/or because Rochlis(-583: figs. 21 and 22) discloses a production tool example having not just two but three pluralities or groups of cavities having three different types of cavities.

9. Claims 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis(-583).

If applicants intended a single opening to mean that the mold is a continuous integral mold with the single opening, then this rejection applies. Rochlis(-583) discloses the apparatus substantially as claimed as mentioned above. The mold of figs. 21 and 22 is a laminate mold composed of layers. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the mold to be integral (i.e., have no layers) because generally there is no invention in making integral that which was before in several parts, In re Lockhart, 90 USPQ 214. See also In re Larson, 144 USPQ 347.

10. Claim 19 is allowed.

Art Unit: 1722

11. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that Rochlis(-583) does not disclose each cavity having a single opening. The examiner respectfully disagrees. The examiner does agree that the mold disclosed by Rochlis(-583) in figs. 21 and 22 is a laminate construction and that each layer has multiple openings. The multiple openings of each layer correspond to the multiple cavities. And, when the layers are assembled to form the mold, corresponding multiple openings define a single cavity having a single opening. Thus, the layers separately have multiple openings, whereas a single cavity has a single opening.

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1722

13. Claims 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 23, 24, 30-32, 89, 90, 92, 93 and 133-148 of copending Application No. 09/955,604. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of claims 23, 24, 30-32, 89, 90, 92, 93 and 133-148 of copending Application No. 09/955,604 such that each cavity has a single (integral) opening because it is well within the artisan of ordinary skill to make integral apparatuses. Generally there is no invention in making integral that which was before in several parts, In re Lockhart, 90 USPQ 214. See also In re Larson, 144 USPQ 347.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

Art Unit: 1722

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (703) 308-2647. The examiner can normally be reached on M-F(8:30-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Art Unit: 1722

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Fr

jl

January 18, 2002



NAM NGUYEN

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700